DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027499
Date Inspected: 23-Apr-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: jobsite

CWI Name: Steve McConnell

Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☐ No	☑ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS project

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and /or monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

Self Anchored Suspension (SAS) Tower: This QA Inspector observed work and/or performed QA verifications at the locations noted below.

Bearing Plate # 007 at the 3-meter elevation: This QA Inspector randomly observed ABF welding personnel Richard Garcia (#5892) using the Shielded Metal Arc Welding (SMAW) process to perform production welding at this location. This QA Inspector randomly observed QC Inspector Tony Sherwood verify the following welding parameters; 130 amperes. This QA Inspector observed a 3.2 mm diameter E7018 electrode was being used. During the shift this QA Inspector periodically verified the preheat using an electronic gauge to be greater than the minimum of 225°F. Later this shift this QA Inspector observed a 4.0 mm diameter E7018 electrode was being used and confirmed with QC Inspector Tony Sherwood the welding parameters had been verified as; 158 amperes. This QA Inspector reviewed Welding Procedure Specification (WPS) ABF-WPS-D15-1160, being used by QC and observed the parameters noted above appeared to be within the ranges in the WPS. This QA Inspector observed towards the end of the shift the welding at this location was approximately 25% complete.

Electro Slag Weld (ESW) joint locations – J and K at the 3-meter elevation: This QA Inspector randomly observed ABF welding personnel Jeremy Dolman (#5042) using the SMAW process to perform pick up welding

at the toes of the weld from face B. This QA Inspector observed QC Inspector Steve McConnell monitoring the work and verify the following parameters; 110 amperes. This QA Inspector observed a 3.2 mm diameter E7018 electrode was being used. This QA Inspector reviewed ABF-WPS-D15-1000 Repair Rev-2 and the parameters appeared to be within the range specified. Later this shift this QA Inspector observed ABF welding personnel Jeremy Dolman (#5042) using the SMAW process to perform repair welding at the weld access hole at weld location K from face B. Lead QA Inspector Danny Reyes informed this QA Inspector the repair had been approved by the Engineer. The welding observed appeared to comply with the contract requirements.

At various location around the tower at both the 3-meter and 9-meter elevations this QA Inspector randomly observed ABF personnel using hand held power grinders with sanding pads to contour weld profiles and /or clean the base material, removing paint, for Ultrasonic Testing (UT) purposes. This QA Inspector observed approximately 230 mm out from the toe of the welds were cleaned; this appeared to provide a clean scanning surface for the 80 mm thick material. See photo below of the original area cleaned for UT and the additional area cleaned.

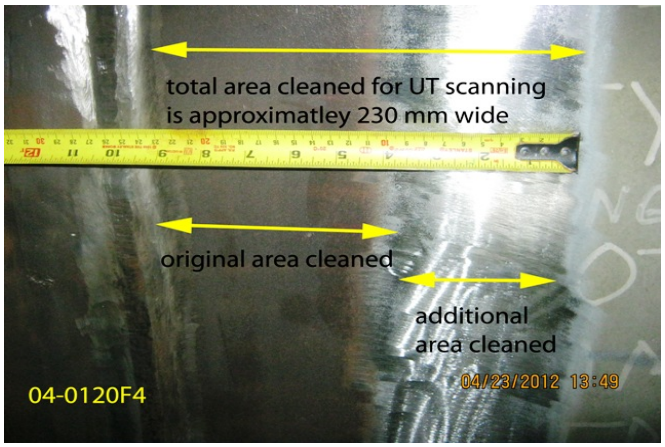
QC Inspector Steve McConnell informed this QA Inspector at various times during the shift he was going to be performing Magnetic Particle Testing on repair welds. This QA Inspector randomly observed QC Inspector Steve McConnell perform MT at the following locations:

•ESW-L, face-A, 3-meter weld access hole / QC Inspector Steve McConnell informed this QA Inspector the visual and MT inspection had been accepted. This QA Inspector performed a visual and MT verification.

•ESW-F, face-B, 3-meter elevation weld access hole / QC Inspector Steve McConnell informed this QA Inspector the visual and MT inspection had been accepted. This QA Inspector performed a visual and MT verification.

See Magnetic Particle Testing Report (TL-6028) this date for further details.

Summary of Conversations:
This QA Inspector had general conversations with American Bridge/Fluor (ABF) personnel, QC personnel and Caltrans personnel during the shift. Except as described above there were no notable conversations.



WELDING INSPECTION REPORT

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer